

DEPARTMENT OF THE INTERIOR

UNITED STATES GEOLOGICAL SURVEY

- QUATERNARY**
- Holocene**
- Qa Qls
Surficial deposits
Qa; alluvium
Qls; landslide debris
- Pleistocene**
- Unconformity
- Qoa
Older alluvium
- Unconformity
- CRETACEOUS**
- Upper Cretaceous**
- Km Kms
Moreno Shale (marine)
Km; clay shale
Kms; sandstone
- Kps Kpa Kpc
Panoche Formation (marine)
Kps; arkosic sandstone, tan, locally contains large concretions; minor interbedded shale
Kp; micaceous shale, gray, with minor thin sandstone beds
Kpc; cobble conglomerate and sandstone
Kpa; Adobe Flat Shale Member of Maddock (1964), dark micaceous shale
- JURASSIC AND/OR CRETACEOUS**
- Jkk
Jkk; Knoxville Formation
Dark, micaceous shale
- Jlt Jkr
gb qd
sp
Ophiolite complex (Extrusive and intrusive rocks)
Jlt; Lotta Creek Tuff of Maddock (1964)
Jkr; Del Puerto Keratophyre of Maddock (1964)
gb; gabbro and diabase, fine-grained
qd; diorite and quartz diorite
sp; serpentinite and peridotite or harzburgite
- fsr fg fs fc
Franciscan assemblage
(Pervasively sheared, slightly metamorphosed marine sedimentary sequence)
fsr; sheared greenstone, sandstone, chert, and glauconite schist
fg; greenstone
fs; sandstone (graywacke), minor amounts of micaceous shale, chert, greenstone, and blue-schist
fc; chert
- References**
- Bishop, C.D., 1970, Upper Cretaceous stratigraphy of the west side of the northern San Joaquin Valley, Stanislaus and San Joaquin Counties, California: California Division Mines and Geology Special Report 104, 29 p.
- Maddock, M.E., 1964, Geology of the Mount Boardman quadrangle, Santa Clara and Stanislaus Counties, California: California Division Mines and Geology, Map Sheet 3, scale 1:62,500
- Raymond, L.A., 1973, Franciscan geology of the Mount Oso area, central California, Ph.D. thesis, Univ. California, Davis, (unpublished)

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.



Geology mapped and compiled by T.W. Dibblee, Jr., (1975); in part modified from M.E. Maddock (1964), L.A. Raymond (1973), C.C. Bishop (1970), and H.S. Sonneman and J.R. Switzer, Jr., unpublished data

PRELIMINARY GEOLOGIC MAP OF THE COPPER MOUNTAIN QUADRANGLE, STANISLAUS COUNTY, CALIFORNIA

by

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1982

COPPER MTN., CALIF.
Map of Boardman is available
N 722.5—W 121.5
1996